

Academic Year: (2019 / 2020)

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Department assigned to the subject: Electronic Technology Department

Coordinating teacher: FERNANDEZ HERRERO, CRISTINA

Type: Electives ECTS Credits : 6.0

Year : 4 Semester :

OBJECTIVES

By the end of this subject, students will be able to have:

1. The ability to apply their knowledge and understanding of digital systems and microprocessors to identify, formulate and solve engineering problems using established methods.
2. The ability to apply their knowledge and understanding to develop and realise designs of embedded systems to meet defined and specified requirements.
3. An understanding of design methodologies to develop applications and algorithms in embedded systems, and interfaces with sensors, actuators, and auxiliary circuits, and an ability to use them.
4. Workshop and laboratory skills
5. The ability to select and use appropriate equipment, tools and methods for the development of embedded systems.
6. An understanding of applicable techniques and methods in digital electronics and microprocessors, and of their limitations

DESCRIPTION OF CONTENTS: PROGRAMME

Design methodology of an industrial electronic system.

Analysis, design and implementation of a system including signal acquisition, actuators, power supplies, digital systems, data representation and control.

LEARNING ACTIVITIES AND METHODOLOGY

The teaching methodology will include:

Magisterial Classes, where the students will be presented with the basic knowledge they must acquire. Students will be supplied with lecture notes and key reference texts which will enable them to complete and acquire a more in depth knowledge of the subject.

Problems Classes, these are aimed at the solving of exercises and examples within the context of real case studies. These classes will be complimented with the resolution of practical exercises on behalf of the student.

Laboratory Practical Sessions

Group tutorials

ASSESSMENT SYSTEM

% end-of-term-examination/test: 60

% of continuous assessment (assignments, laboratory, practicals...): 40

FINAL EXAM. Global assessment of knowledge, skills and capacities acquired throughout the course.

CONTINUOUS EVALUATION. Assesses papers, projects, class presentations, debates, exercises, internships and workshops throughout the course.

